

LYNCHBURG FIRE & EMS DEPARTMENT
Standard of Response Cover

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Chapter 1

Introduction

The Lynchburg Fire & EMS Department (LF&EMS) has operated under stated general response time goals for many years. However, it had not developed and adopted clearly defined standards of response coverage (SORC). In 2003 a committee began working to define a SORC for LF&EMS. The effort was initiated in an effort to establish such policy, as it is an essential component to becoming an accredited fire service agency.

The Department is currently in the self-assessment phase of the accreditation process of the Commission on Fire Accreditation International (CFAI). One requirement of a fire agency to receive accreditation is to prepare a SORC plan before or during the self-assessment phase of accreditation. SORC is defined as those written procedures determining the distribution and concentration of fixed and mobile resources. This process includes reviewing community expectation, setting response goals and objectives and establishing a system of measuring performance. This document will serve as a critical element of the accreditation process.

This process uses a systems approach to deployment rather than a one-size-fits-all prescriptive formula. In this comprehensive approach, LF&EMS is matching local need (risks and expectations) with the costs of various levels of service. In an informed public policy debate, City Council “purchases” the fire and EMS protection (insurance) the community needs and can afford.

If resources arrive too late or are understaffed, the emergency will continue to escalate- drawing more of the Department’s resources into a losing battle. What fire departments must do – if they are to save lives and limit property damage – is arrive within a short period of time with adequate resources to do the job. To control a fire before it has reached its maximum intensity requires geographic dispersion (distribution) of technical expertise and cost-effective clustering (concentration) for maximum effectiveness against the greatest number of types of risks.

Therefore, creating a SORC consists of decisions made regarding distribution and concentration of field resources in relation to the potential demand placed on them by the type of risk and historical need in the community. Furthermore, if it is to be meaningful in the community, the outcomes must demonstrate that lives are saved and property is protected.

To clearly define SORC, the department must have a policy statement regarding how risks are categorized within the context of the City of Lynchburg. Because of the wide range of complex issues for which fire departments are held accountable, it is necessary that there is a method for identifying risks and expected outcomes. Based upon that risk assessment and anticipated workload, a SORC is developed for fire and EMS functions. It is recognized within the fire service profession that this evaluation must take into account both the frequency and severity of the most common types of incidents.

By studying five main components of the SORC systems approach defined by CFAI, LF&EMS was able to develop this document with a high degree of confidence. Those five components include:

- Existing deployment
- Risk identification
- Risk expectations
- Service level objectives
- Distribution

Studying the performance of an emergency response agency such as LF&EMS covers many areas and must address many questions, such as the following:

- What type of emergency response apparatus, with what staffing levels, should be stationed in what locations, at what hours of the day?
- What is the expected workload of each company?
- What does the demand for service in each area look like, and what are projected demands?
- What levels of service should LF&EMS provide within each emergency discipline?
- Are station response goals appropriate for service delivery capabilities?

LF&EMS will utilize this analysis to more comprehensively address a number of issues. This SORC plan will provide:

- A baseline tool for defining emergency response performance standards and goals;
- A summary of community risk (life safety, economic and environmental);
- An analysis of critical emergency scene tasks, which should assume maximum utilization of all personnel under a “worst case” scenario [This analysis should be consistent with the department’s risk analysis, staffing levels and goals];
- A basis for continually measuring performance over time; and
- Guidelines for short-term and long-term policy decisions dealing with resource procurement and allocation.

The SORC is developed through the systematic evaluation of the department’s present policies, practices and historical response data. The results of these analyses are then used to develop formal statements regarding the level of service the department can be expected to provide, along with recommendations to make changes in the way services are delivered for the purpose of improving the level of service to the community.

Level of service is defined as the resources needed to meet stated service level objectives. Level of service is defined only in terms of what is provided and not in terms of effectiveness or of quality.¹

Quality of service is measured by outcomes, such as fire loss data and lives saved, and perceptions, such as those documented through community surveys. While these measures are important as indicators of quality of service, they are not part of standards of cover, and are therefore not included in this type of document.

This document and its contents will be reviewed annually to determine if the level of service and/or established goals are appropriate.

¹ *Fire & Emergency Service Self-Assessment Manual*, Commission on Fire Accreditation International, Sixth Edition.

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Chapter 2

Community Baselines

Community Overview

Lynchburg, Virginia is a city which remembers its past while focusing on the future - a vibrant central city fostering a strong sense of community, economic opportunity for all our citizens and responsive, results-oriented local government.

In October 1786, the Virginia General Assembly granted John Lynch a charter for a town. The 45 acres granted for the town was his land. Lynchburg was incorporated as a town in 1805 and as a city in 1852. From April 6 to 10, 1865, Lynchburg served as the capital of Virginia. Under Governor William Smith, the executive and legislative branches of the Commonwealth moved to Lynchburg for the few days between the fall of Richmond and the fall of the Confederacy. Located in Central Virginia, Lynchburg was named for its founder, John Lynch, who at the age of 17 started a ferry service across the James River in 1757.

The current charter for the City of Lynchburg is derived from Chapter 343 of the Acts of Assembly of 1928, approved by the General Assembly on March 28, 1928 and has been amended numerous times since then. It can be found on the City's website at www.lynchburgva.gov.

Today, based on population, the City of Lynchburg is the eleventh largest city and the twenty-fifth largest municipality, based on population, in the Commonwealth of Virginia with a population of 65,269 and an incorporated area of 50.25 miles. The daytime population increases significantly during "normal" business hours of 8:00 a.m. to 6:00 p.m., regularly reaching 100,000 people. Additionally, as the home to three residential colleges and universities, an additional 10,688 people inhabit the City from August to May of each year.

The city has a wide range of occupancies including high-rise, commercial/industrial and residences. It has real property with an assessed valuation estimated at nearly \$3.5 billion dollars.

Table 2.1 City of Lynchburg Demographics

City of Lynchburg	
Population ¹	65,269
Area	50.25
Real Property Value ²	\$3,471,288,000

Governance Model of the Authority Having Jurisdiction

The City of Lynchburg operates under a council/manager form of government. The City Council develops and adopts legislation and policies to direct the City organization, but employs a City Manager to manage and oversee all City personnel and operations to carry forward council's direction.

Through popular elections on even numbered years, Lynchburg citizens regularly choose the seven members of City Council. Elected to staggered four-year terms of office, City Council is elected on either an at-large (3 members) or ward (4 members) representational basis. From among their group, the elected City Council members, in turn, choose by simple majority vote a President or Mayor, who serves a two-year term.

Appointed by the City Council, the City Manager serves as the chief executive officer of the municipal corporation. The duties of this office are prescribed by the Charter of the City of Lynchburg, and include the following responsibilities: appointment of department directors; daily execution of contracts on behalf of the City Government; preparation of an annual budget; reporting to City Council concerning the financial condition of City; and all other duties as prescribed by law, ordinance or resolution of City Council.

The City Manager is responsible to the City Council for the effective operation of all government functions. Since the early 1990's, the City has been actively engaged in high-performance development, which has resulted in innovative community/city partnerships; customer service improvements; regional visioning; and the increased use of technology in service delivery. A direct outcome of this work has been the development of a results-oriented strategy for government that

¹ U.S. Census Bureau, 2000.

² City of Lynchburg Assessors Office, January 1, 2005.

will translate the vision and goals of City Council into an internal strategic plan that provides focus and direction for the organization.

Fire protection in Lynchburg was first organized on May of 1883. The department, Lynchburg's first, is now known as the Lynchburg Fire & EMS Department and has been in continuous operations since that time. The department began providing emergency medical services in 1975 and continues to provide this service today. In October of 1997, the department's Technical Rescue Team was officially established and in latter part of 1999, the department's Hazardous Materials Team was officially established.

The City Manager appoints the Fire Chief, who is responsible for organizing and administering the department. The department consists of 179 full time equivalent (FTE) positions, including 174 uniformed and 5 civilian personnel. Additionally, two Information Technology positions are presently assigned to the department on a full time basis.

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Chapter 3

Standards, Goals and Objectives

Introduction

Historically, LF&EMS has not used a Standard of Response Cover document or statement to guide its operations. Instead, it has operated under a variety of documents, including a 5-year strategic plan, general orders, operational guidelines, policies and procedures, emergency medical services protocols and official memorandums from senior and operations level command staff. These documents provide guidance for operational and administrative functions, and are updated on both a scheduled and unscheduled basis.

LF&EMS conducted a significant revision to its long-term comprehensive planning efforts during the 2001 fiscal year. It was then that the department adopted its five-year strategic plan. The strategic plan is further implemented through annual business plans from its “focus area” and “strategic business” units.

The department linked its strategic plan with the adopted vision of City Council and citizen expectations. This was accomplished by surveying citizens, customer groups and City Council as well as analyzing council’s “Lynchburg 2020 Vision Statement.” The department’s strategic plan was based on alignment with council’s desired outcome to be “A Community Environment Second to None.”

In June 2004, the Lynchburg Fire and EMS Department initiated efforts to collect a variety of data associated with departmental operational and administrative activities, as well as population, socio-economic, demographic, economic, transportation, infrastructure and other information relating to the City of Lynchburg. This initiated LF&EMS’ efforts to further define strategic objectives for what was called, “Lynchburg 2015.”

As a part of the department’s 2015 planning process, participants developed a number of broad statements relating to factors that might influence community needs for departmental services by the year 2015. The ramifications suggested by these statements were then researched and analyzed to determine what areas of

the department's community service components will require modification in order to meet changing needs.

In its entirety, the information collected indicates there should be few surprises with regard to our ability to deliver Fire and EMS services in 2015. In comparing current reality to expected 2015 conditions, it is anticipated the initiatives contained in our Strategic Plan have us taking the appropriate actions to maintain an efficient and effective level of service in the coming years. Discounting dramatic changes in system delivery requirements or unforeseen major disasters, only moderate changes to our existing service delivery system should be required to meet the challenges of the Fire and EMS services required in 2015.

Vision, Purpose, and Values

Important elements of the strategic plan and the annual business plans include LF&EMS' vision, purpose, and values statements, goals, strategies and performance measures, as outlined below:

Vision

An environment where customers are safe and feel secure through community partnerships and innovative utilization of resources.

Mission

To form partnerships that cultivate a safe environment through education, direction, and resolution of fire, emergency medical, or life safety situations.

Values

Trust – Honesty – Integrity – Compassion

Desired Outcome Statements

- **Community Environment:** Provide innovative and compassionate services to improve our community and enhance our customer's quality of life.
- **Organizational Development:** Seek innovative organizational opportunities to maximize customer service.
- **Resource Development:** Provide resources that support the delivery of quality service.

- **Public Relations:** Establish relationships to promote public safety education.
- **Regional Cooperation:** Cultivate cooperative relationships to align regional public safety initiatives.

Goals and Strategies

In response to the rapidly changing environment of emergency services based on customer expectations, Lynchburg Fire & EMS established the following goals and strategies for the implementation of its strategic plan:

- Develop a post-incident program to cultivate a safe environment for the community.

LF&EMS will established a private, not-for-profit foundation and develop a restoration program to ensure customers get the resources necessary to restore their quality of life after a fire, EMS situation or other emergency. A post-incident follow up analysis process to ensure established standards are maintained and quality customer service is achieved will also be implemented.

- Develop a wellness plan for the community to enhance our customers' quality of life.

LF&EMS will create a community needs response plan to address specific needs with regard to customers with special care requirements (special needs customers) and to develop and implement a community-based wellness plan in order to create a customer that is less dependent on emergency medical services care. A public access defibrillator program will also be developed.

- Develop a workforce plan to ensure the right people, with the right skills, are in the right place at the right time.

LF&EMS will maintain a departmental health and wellness program to ensure the health and welfare of its members, develop competency-based job descriptions, career path progressions, formal education requirements (including participation in the

National Fire Academy's Executive Fire Officer program by those above the rank of captain) and succession planning for proper and timely replacement of personnel to maintain functional leadership throughout the department. Efforts to implement continuous workforce training, maintain policies and procedures (especially those related to departmental promotions) and create and promote diversity initiatives will also be completed.

- Develop a comprehensive planning and analysis process in order to provide the most efficient and effective customer service.

LF&EMS will conduct a semi-annual review of its strategic plan in order to ensure progression and relativity. Systems establishing on-going evaluation of departmental resources will be implemented to ensure continued quality customer service. The department will also become an accredited fire department by establishing standard of response cover criteria and conducting a self-assessment to measure departmental performance.

- Develop a program that ensures consistent replacement schedules, distribution methods and funding strategies to support non-personnel resources.

LF&EMS will develop a facilities plan to ensure existing and future buildings meet code requirements and have adequate space and equipment in order to support personnel needs and the dynamic needs of the service area. A resource plan will be created for replacement, distribution, and funding of department non-personnel resources. A grant committee will be established to explore alternative funding.

- Develop educational programs for all Lynchburg Fire & EMS customer groups in order to promote public safety.

LF&EMS will establish a public education coordinator for promotion of partnerships with educational institutions, neighborhood watch groups, and local business and civic

organizations to promote public safety. A high school cadet program will be established to create an interest in fire and EMS careers, recruit volunteers and advance public safety education.

- Establish media relationships and partnerships to ensure effective delivery of public safety education.

LF&EMS will establish partnerships with the local media to provide public safety announcements and to foster cooperation between the department and the media to promote positive coverage of emergency events.

- Develop a regional cooperation plan to identify opportunities that enhance public safety.

LF&EMS will work with regional fire and EMS organizations to maximize the use of resources, including a regional recruit academy, explore regional grant opportunities and coordinate joint procurement activities.

Current Levels of Service

LF&EMS currently enjoys a Class 3¹ fire suppression rating from the Insurance Services Office, Inc. (ISO), as last rated in 2004.

LF&EMS operates out of eight fire stations divided into two geographically defined districts: Battalion 1 (north) and Battalion 2 (south). Based on 50.25 square miles, the average area protected by initial attack companies equals 6.3 square miles.² Fire suppression activities are provided by eight engine companies, two truck companies, one rescue company, four medic units and two battalion chiefs. Advanced life support emergency medical care is provided by four medic units and by first response ALS engine companies. LF&EMS has two specialty teams: a technical rescue team and a hazardous materials team.

Staffing minimums are shown below as the minimum number of personnel assigned to each company or unit per shift. Specialized equipment that does not

¹ On a scale of 1-10, with 1 representing the highest rating.

² Generally speaking when the area protected by fire companies exceeds nine square miles this results in extended response times.

have regularly assigned staffing is not shown here but is included in the distribution of resources section.

Table 3.1 **LF&EMS Station Staffing**

Station	Apparatus	Full Staffing	Minimum Staffing
Battalion 1			
Station 1	Engine 1	3 FF/EMT-B's and 1 FF/EMT-P	3FF/EMT-B's
	Truck 1	4FF/EMT-B's	3 FF/EMT-B's
	Medic 1	1 FF/EMT-B and 1 FF-EMT-P	1 FF/EMT-B/1 FF-EMT-P
	Battalion 1	1 FF/EMT-B	1 FF/EMT-B
	Tech 1 Utility/Brush 1	Cross-staffed ³ Cross-staffed	Cross-staffed Cross-staffed
Station 2	Engine 2	4 FF/EMT-B's	3 FF/EMT-B's
	Medic 2 ⁴	2 EMT-B's	2 EMT-B's
Station 4	Engine 4	2 FF/EMT-B's and 1 FF/EMT-P	3 FF/EMT-B's
	Medic 4	1 FF/EMT-B and 1 FF/EMT-P	1 FF/EMT-B/1 FF-EMT-P
Station 5	Engine 5	3 FF/EMT-B's and 1 FF/EMT-P	3 FF/EMT-B's
	Medic 5	Reserve	Reserve
Battalion 2			
Station 3	Engine 3	2 FF/EMT-B's and 1 FF/EMT-P	3 FF/EMT-B's
	Medic 3	1 FF/EMT-B and 1 FF/EMT-P	1 FF/EMT-B/1 FF-EMT-P
	Rescue 1 ⁵	3 FF/EMT-B's	3 FF/EMT-B's
Station 6	Engine 6	2 FF/EMT-B's 1 FF/EMT-P	3 FF/EMT-B's
	Medic 6	1 FF/EMT-B and 1 FF/EMT-P	1 FF/EMT-B/1 FF-EMT-P
Station 7	Engine 7	3 FF/EMT-B's and 1 FF/EMT-P	3 FF/EMT-B's
	Truck 2	4FF/EMT-B's	3 FF/EMT-B's
	Battalion 2	1 FF/EMT-B	1 FF/EMT-B
	Medic 7	Reserve	Reserve
	Haz Mat 1 Utility/Brush 2	Cross-staffed Cross-staffed	Cross-staffed Cross-staffed
Station 8	Engine 8	3 FF/EMT-B's and 1 FF/EMT-P	3 FF/EMT-B's
	Medic 8	Reserve	Reserve

³ Cross-staffing is a practice whereby emergency responders staff several types of emergency response vehicles simultaneously within a work period. The type and scope of emergency (i.e. structure fire, vehicle accident) dictate which type of emergency response vehicle the emergency responders staff for an incident.

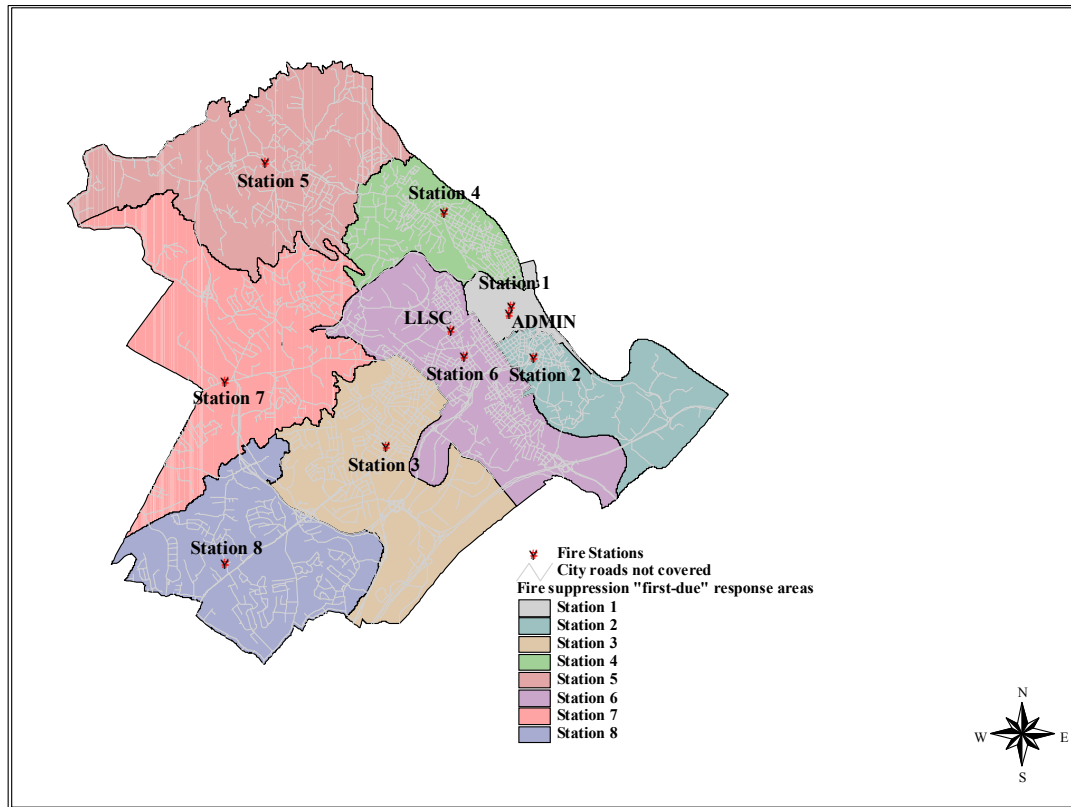
⁴ Medic 2 is staffed eight hours a day (Monday through Friday) for non-emergency transports only.

⁵ The Rescue unit is staffed with a minimum of one technical rescue specialist, one hazardous materials specialist and one firefighter.

A map showing the locations of all Lynchburg fire stations is provided below.

Map 3.1

Station First Due Districts⁶



Service Delivery Goals

Specific goals related to staffing, response times, and infrastructure development may be stated in this SORC document and should be considered as LF&EMS' desired level of service.

The CFAI accreditation process has provided the department with an opportunity to look more closely at how it manages resources using sound data and logical processes. LF&EMS will continue to use broad, community-based strategic planning processes, and a comprehensive annual review of the SORC document to guide its planning and resource deployment.

⁶ Lynchburg Fire Department: Geographic Information System (GIS) Fire Suppression and Emergency Medical Service Response Capabilities Analysis, International Association of Fire Fighters, November 16, 2004.

As always, definitive decisions for significant initiatives will continue to rest with City Council with consideration being given to the desired level of service that the community demands and the resources available to meet these demands.

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